

Method	Serogroup A		Serogroup C	
	Pre (n=35)	Post (n=35)	Pre (n=35)	Post (n=35)
SBA	612	10,023	46	2,649
OP	412	16,712	86	4,993

FIG. 1

Table 2. Competitive inhibition of opsonophagocytic activity of reference sera after absorption with specific serogroup A and C *Neisseria meningitidis* polysaccharide (200 µg/ml)

CDC reference sera	Serogroup A			Serogroup C			
	Titer Before Absorption	Titer After Absorption	% decrease ≡	Titer Before Absorption	Titer After Absorption	% decrease ≡	
205	1024	4	99.6	256	4	98.4	
209	1024	4	99.6	4096	8	99.8	
219	1024	8	99.2	512	8	98.4	
233	512	4	99.2	256	4	98.4	
243	256	4	98.4	128	4	96.8	
Mean % decrease			99.2	Mean % decrease			98.4

FIG. 2

Table 3. Correlations of SBA, OP and ELISA ($\mu\text{g/ml}$) concentrations ($n=70$) for *Neisseria meningitidis* serogroups A and C

Serogroup A			Serogroup C		
ELISA vs SBA	ELISA vs OP	SBA vs OP	ELISA vs SBA	ELISA vs OP	SBA vs OP
$r=0.89$ $p < 0.01^*$	$r=0.83$ $p < 0.01$	$r=0.75$ $p < 0.01$	$r=0.85$ $p < 0.01$	$r=0.74$ $p < 0.01$	$r=0.79$ $p < 0.01$

a. Pearson's correlation

FIG. 3

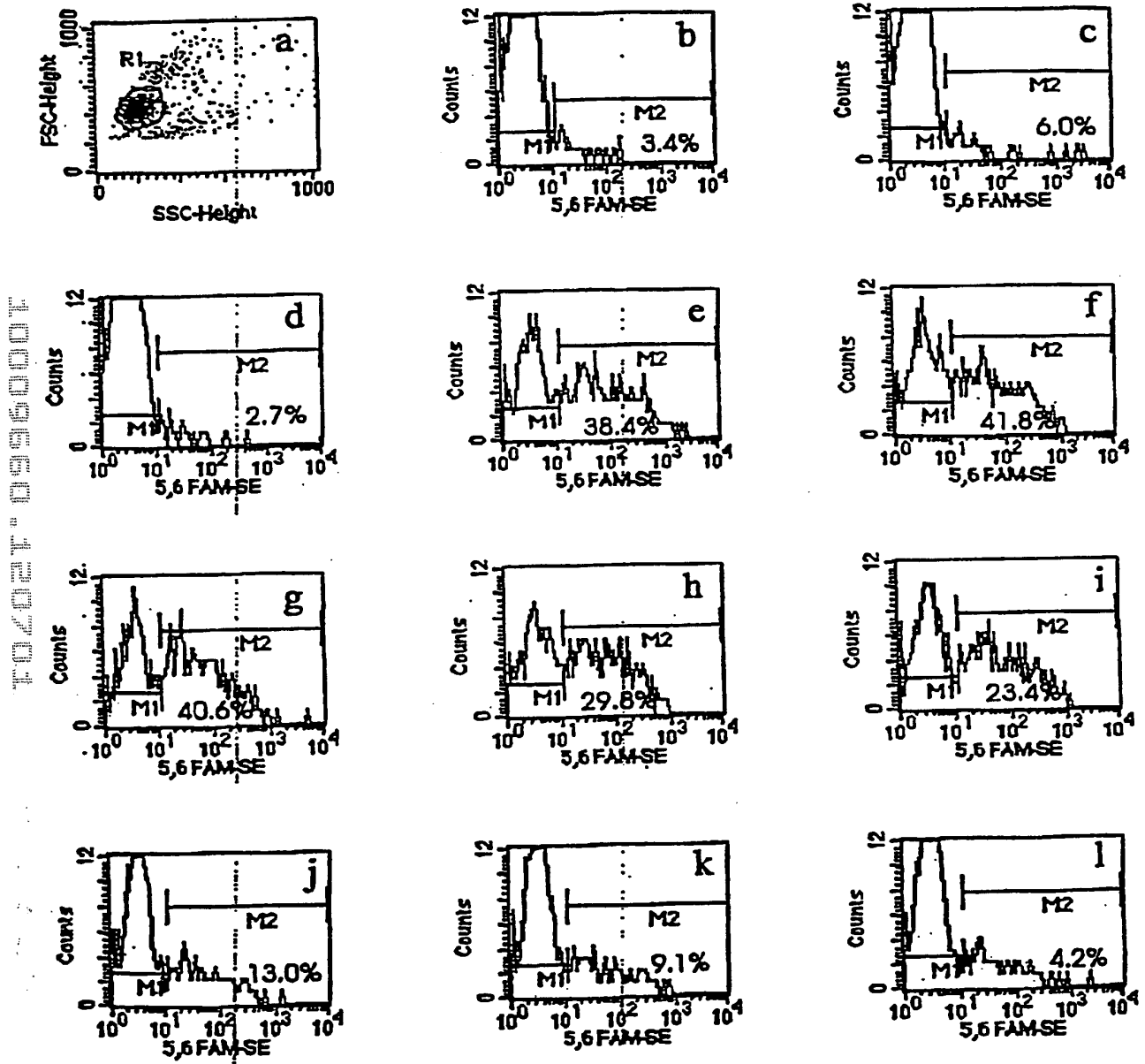


Fig. 4

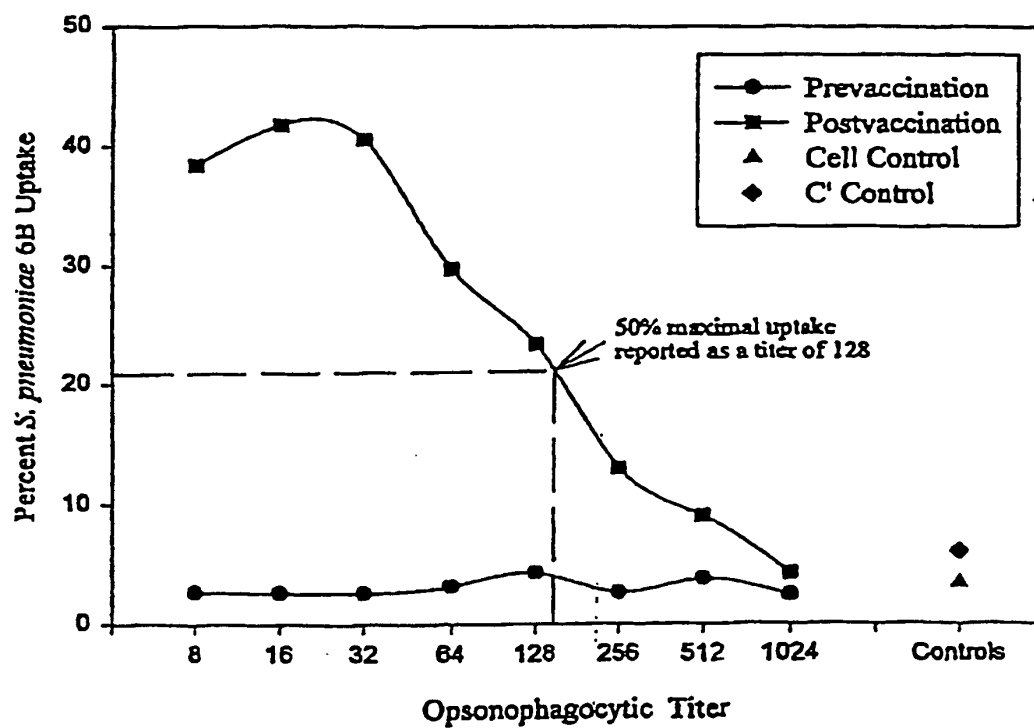


Fig. 5

Table 1. Competitive inhibition of opsonophagocytic activity with type-specific polysaccharide.

Serotype ^a	Opsonophagocytic activity		Average percent inhibition ^c
	Median titer	Range Median titer after	
4	2048	512 to 2048 4	99.7
6B	128	64 to 512 4	97.0
9V	512	256 to 2048 4	99.3
14	512	256 to 512 4	98.9
18C	256	128 to 512 4	98.9
19F	128	64 to 256 4	96.9
23F	128	64 to 512 4	96.9

^aSerotype of *Streptococcus pneumoniae*.^bAll titers in the presence of 0.5 mg/ml of homologous Ps were <1:8, and were reported as a titer of 4 for analysis purposes.^cPercent inhibition of opsonophagocytic activity after addition of type-specific polysaccharide.

Fig. 6

TABLE 2. Correlation between the flow cytometric and manual viable opsonophagocytic assays for pre- and postvaccination serum.

<i>Streptococcus pneumoniae</i> serotype	Geometric mean titer				Correlation ^a		
	Flow cytometric		Manual viable		r value	P value	Slope
	Pre	Post	Pre	Post			
4	5	157	5	117	0.90	<0.001	0.83
6B	12	176	11	98	0.85	<0.001	0.80
9V	5	665	6	256	0.88	<0.001	0.70
14	24	562	24	352	0.87	<0.001	0.77
18C	6	83	7	63	0.89	<0.001	0.84
19F	7	56	7	53	0.95	<0.001	1.01
23F	5	20	5	31	0.91	<0.001	0.94

^aThe Pearson's product moment correlation coefficient was used for the linear regression analysis between the two methods. The overall correlation between the two assays for all serotypes combined was $r = 0.89$, $P < 0.001$, and slope = 0.81. Twenty-four paired sera were tested to determine the correlation between the two assays.

Fig. 7

TABLE 3. Cumulative percentage of serum samples (n = 48) analyzed by the flow cytometric opsonophagocytic assay differing in titer as compared with the manual assay.

Dilution well difference from median manual opsonophagocytosis titer	Streptococcus pneumoniae Serotype					
	4	6B	9V	14	18C	19F All
0	59.4	45.3	43.8	39.1	50	65.6 52
+1	75	70.3	59.4	76.6	78.2	96.8 75.9
+2	87.5	84.3	75.0	89.1	87.5	98.4 87.2
+3	98.5	92.1	87.5	95.4	95.3	98.4 94.6

Fig. 8